

## ABSTRACT

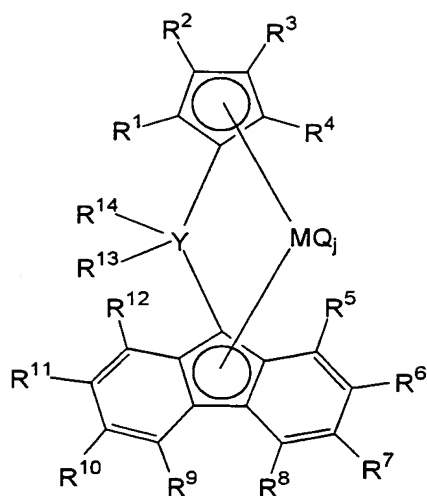
The present invention provides a propylene/1-butene random copolymer (PBR) having excellent flexibility, impact resistance, heat resistance and low-temperature heat-seal properties, a polypropylene composition containing the copolymer, a sheet, film or stretched film comprising the composition and a composite film having a layer of the composition.

The propylene/1-butene random copolymer contains 60 to 90 mol% of propylene units and 10 to 40 mol% of 1-butene units and has a triad isotacticity of not less than 85% and not more than 97.5 %, a molecular weight distribution ( $M_w/M_n$ ) of from 1 to 3, an intrinsic viscosity of from 0.1 to 12 dl/g, a melting point ( $T_m$ ) of from 40 to 120°C, and satisfies the following relation

$$146 \exp (-0.022M) \geq T_m \geq 125 \exp (-0.032M)$$

wherein  $T_m$  represents a melting point and  $M$  (mol%) represents a content of 1-butene constituent units.

The invention, further, provides a transition metal compound useful as an olefin polymerization catalyst and an olefin polymerization catalyst containing the transition metal compound. The transition metal compound is represented by the following formula (2a):



(2a)

wherein each of  $R^1$  and  $R^3$  is hydrogen,  $R^2$  and  $R^4$  are selected from a hydrocarbon group and silicon-containing group,  $R^5$  to  $R^{13}$  are selected from hydrogen, a hydrocarbon group and silicon-containing group, and adjacent substituent groups  $R^5$  to  $R^{12}$  may be linked to form a ring.  $R^{14}$  is an aryl group, and  $R^{13}$  and  $R^{14}$  may be linked to form a ring.  $M$  is a Group 4 transition metal,  $Y$  is a carbon atom,  $Q$  is halogen, etc, and  $j$  is an integer of 1 to 4.